

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1-4. (canceled).

5. (original): A method for realizing an end-to-end connection between a client layer connected to a Resilient Packet Ring (RPR) network and a client layer connected to a Multi Protocol Label Switching (MPLS) network, the method comprising:

interconnecting the RPR network and the MPLS network through a Transparent LAN Service (TLS) layer;

in the direction from RPR to MPLS:

encapsulating received client frames in TLS packets, indicating the final destination;

encapsulating the TLS packets in RPR packets and passing the encapsulated TLS packets to the MPLS network;

wherein the TLS packets become MPLS packets and travel in the MPLS network until the final destination; and

in the direction from MPLS to RPR:

encapsulating received client frames in MPLS packets, indicating a Label Switched Path (LSP) that has to be followed up to the final destination;

switching the MPLS packets inside the MPLS network and then passing the switched MPLS packets to the TLS network, becoming TLS packets;

encapsulating the TLS packets in RPR packets and wherein the encapsulated TLS packets travel in the RPR network, until the final destination,
wherein an auxiliary TLS Header is added to said received client frames, obtaining said TLS packets; then an RPR Header is added to said TLS packets, obtaining said RPR packets,
and in that said TLS Header contains a channel identifier field, identifying the connection between the client layer connected to the RPR network and the client layer connected to the MPLS network, said TLS Header further containing Reserved bits and Error correction bits, and

~~A method as in claim 4,~~ wherein in the direction from RPR to MPLS, the TLS header is converted in an MPLS Header by the following steps:

the TLS channel identifier field is left unchanged and becomes the MPLS Label in the MPLS header;

TLS Reserved bits are left unchanged and put in the MPLS header;

the TLS Error correction bits are removed and a predefined MPLS Time-to-live value is inserted in the MPLS header.

6. (original): A method as in claim 5, wherein in the direction from MPLS to RPR, the MPLS Header is converted in a TLS Header by the following steps:

the MPLS Label field is left unchanged and becomes the TLS channel identifier field;

MPLS Reserved bits are left unchanged and put in the TLS header;

the MPLS Time-to-live is removed and TLS Error correction bits are inserted in the TLS Header.

7- 9. (canceled).

10. (previously presented): An RPR node suitable to implement a method for realizing an end-to-end connection between a client layer connected to a Resilient Packet Ring (RPR) network and a client layer connected to a Multi Protocol Label Switching (MPLS) network, the method comprising:

interconnecting the RPR network and the MPLS network through a Transparent LAN Service (TLS) layer;

in the direction from RPR to MPLS:

encapsulating received client frames in TLS packets, indicating the final destination;

encapsulating the TLS packets in RPR packets and passing the encapsulated TLS packets to the MPLS network;

wherein the TLS packets become MPLS packets and travel in the MPLS network until the final destination; and

in the direction from MPLS to RPR:

encapsulating received client frames in MPLS packets, indicating a Label Switched Path (LSP) that has to be followed up to the final destination;

switching the MPLS packets inside the MPLS network and then passing the switched MPLS packets to the TLS network, becoming TLS packets;

encapsulating the TLS packets in RPR packets and wherein the encapsulated PLS packets travel in the RPR network, until the final destination,

wherein an auxiliary TLS Header is added to said received client frames, obtaining said TLS packets; then an RPR Header is added to said TLS packets, obtaining said RPR packets, and in that said TLS Header contains a channel identifier field, identifying the connection

between the client layer connected to the RPR network and the client layer connected to the MPLS network, said TLS Header further containing Reserved bits and Error correction bits, and the method of claim 4,

wherein the RPR node comprises:

means for adding the TLS Header to the RPR Header; and

means for selecting a port connected to a corresponding port of a node of the MPLS network, on the basis of the channel identifier field value.

11. (previously presented): An MPLS node suitable to implement the method of claim 6, wherein the MPLS node comprises:

means for converting the TLS Header into an MPLS Header and vice-versa; and

means for selecting a port connected to a corresponding port of a node of the RPR network, on the basis of the Label value.

12-15. (canceled).